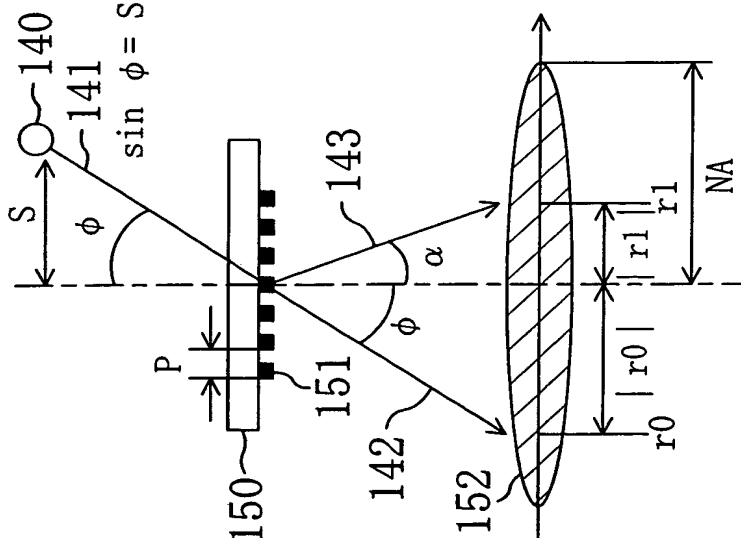


FIG. 5A



define

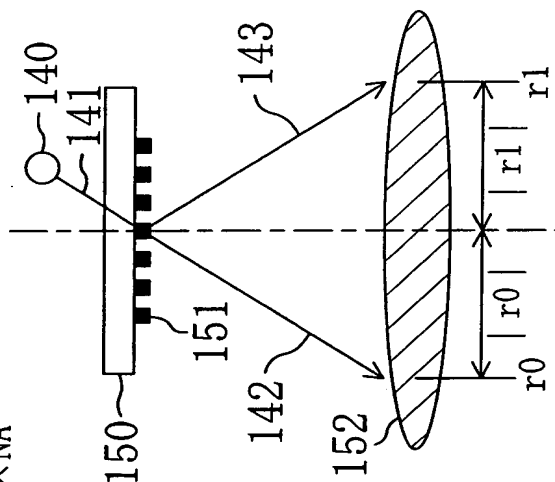
$$\sin \phi = |r_0|,$$

$$\sin \alpha = |r_1|,$$

$$|r_0| + |r_1| = \lambda/P \text{ and}$$

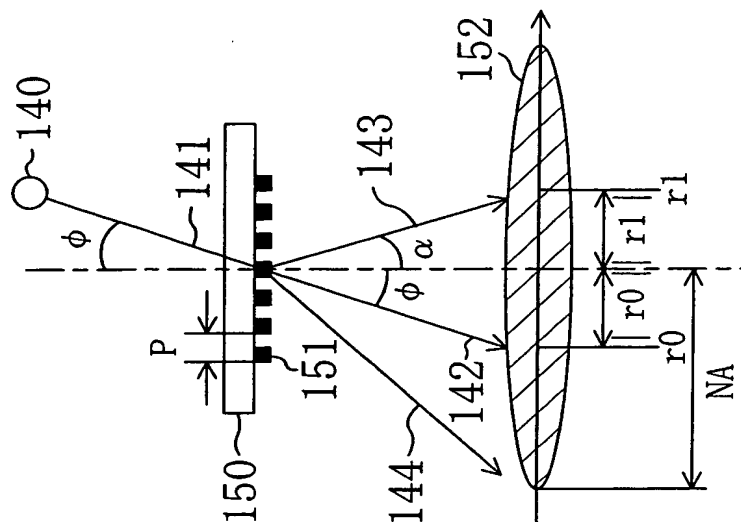
$$\sin \theta_1 = |r_0| + |r_1|$$

FIG. 5B



If $r_0 = -r_1$, focused 0th-order diffraction light and focused first-order diffraction light are in the identical phase even in a defocus state.

FIG. 5C



When both +first-order diffraction light and -first-order diffraction light pass through a mask, a good defocus state cannot be obtained.

define

$$\sin \phi = |r_0|,$$

$$\sin \alpha = |r_1|,$$

$$|r_0| + |r_1| = \lambda/P \text{ and}$$

$$\sin \theta_1 = |r_0| + |r_1|$$

FIG. 6A

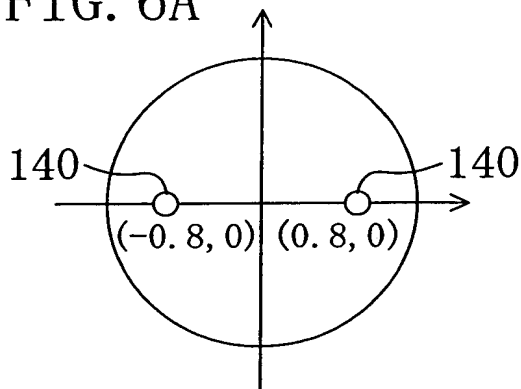


FIG. 6B

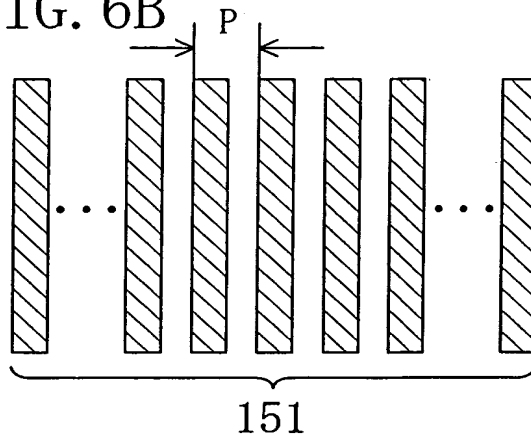


FIG. 6C

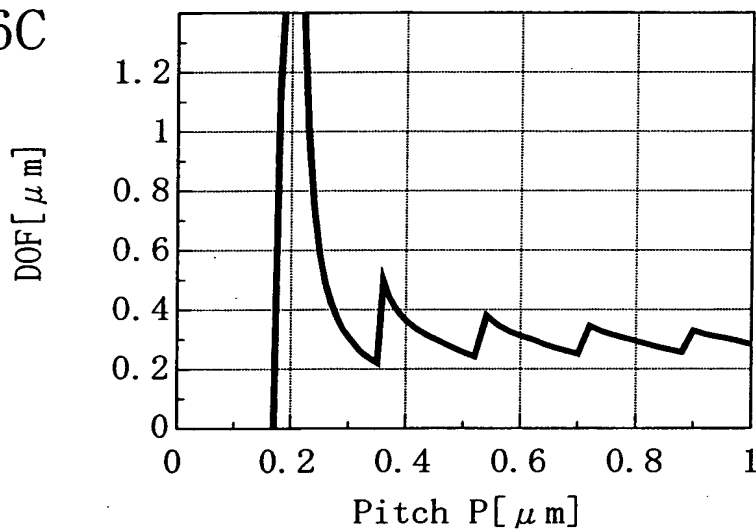


FIG. 6D

